

H. H. NICHOLS.
TORCH.
APPLICATION FILED MAY 14, 1912.

1,036,514.

Patented Aug. 20, 1912.

Fig. 2.

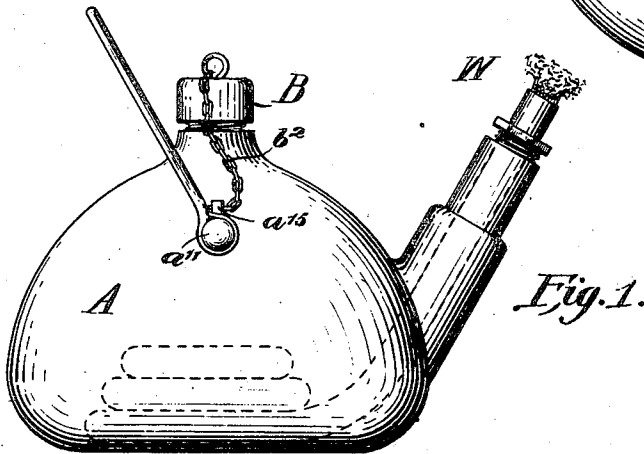
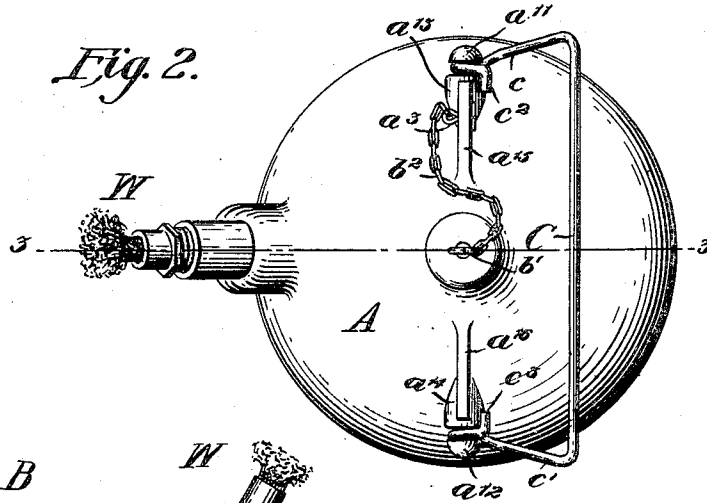
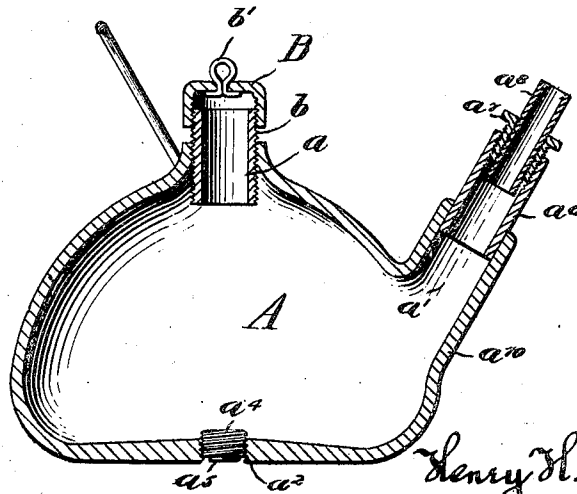


Fig. 1.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY H. NICHOLS, OF PHILADELPHIA, PENNSYLVANIA.

TORCH.

1,036,514.

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To all whom it may concern:

Be it known that I, HENRY H. NICHOLS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Torches, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to oil burning torches and has for its object the improvement of such devices so as to render them safer and more efficient than at present.

In order to attain my object, I provide the torch with a heavy cast iron body in tea kettle shape, with a swiveled screw cap held against loss by means of a chain, a long wick with detachable spout whereby it can be readily removed, replaced and adjusted, and a transverse bail or handle provided with means to prevent the flame from coming into contact with the hand in carrying. The body is of such shape as to remain in stable equilibrium when deposited even on rough ground or piles of material, and the wick tube is inclined at such an angle to the body that it may be placed in the most advantageous position to clear obstructions and furnish light in difficult places.

My invention is illustrated in the accompanying drawings in which—

Figure 1 is a side view of the torch, Fig. 2 is a plan view of the same, and Fig. 3 is a vertical section on the line 3—3 of Fig. 2.

Referring to the drawings, A is the body, cast as already stated preferably of iron, cored out so as to have ample oil capacity and with three openings a , a' and a^2 . Two of these openings a and a' receive nipples b and b' respectively, which are held in place in the mold and are cast into the body, so as to avoid the necessity for any further machine work or manipulation, thereby rendering the device cheap, efficient and easy to assemble. The opening a^2 is threaded to receive a screw plug a^4 , the head of which is squared or slotted and countersunk so as to be flush with the bottom of the pot or body. The opening a' is to receive the wick, and the collar or nipple a^6 being cast into the main tube a^{10} , is internally threaded at its outer end to receive a flanged nut carrying the tip or wick holder a^8 , which may be threaded or otherwise secured on the collar a^7 . The parts a^7 and a^8 may be made

in one if desired, but for the sake of ease of manufacture and adjustment, I have found it desirable to make them in two parts as shown.

The bore of the tubular wick holder a^8 is smooth, and accurately proportioned to receive wicks of a predetermined size, clasp- ing the same firmly against accidental displacement, and preventing both excessive flow of oil upward and the undue extension of combustion downward. To confine the oil at this point requires a good fit and in torches heretofore designed in which the spouts or wick holders have been made of pressed or cast metal without a separate holder, it has been found difficult to produce a uniformly good fit without hand work which is expensive and annoying.

The remarks applied to the wick holder are also in part applicable to the fitting for the cap, made in the form of a tube b cast into the upper opening in the body. By providing these extra parts it is possible to do the cutting and threading by automatic machine tools, very much more expeditiously and cheaply than would be possible if the weight of the body had to be handled and the openings directly tapped or otherwise worked.

Extending transversely across the top of the body is a bail C having its ends c and c' bent down and formed into eyes passing around the headed studs a^{11} and a^{12} which project in opposite directions from the two bosses a^{13} and a^{14} cast on the body. These studs are formed by supporting two wrought iron rivets in the mold, so that one end of each will be cast in the boss a^{13} or a^{14} . The extreme ends c^2 and c^3 of the downwardly bent portions of the bail are twisted around and then bent inwardly at right angles so as to lie parallel to the main portion or handle of the bail. Cast upon the top of the body and extending in opposite directions from the cap are two flanges or ribs a^{15} and a^{16} , the outer ends of which are integral with the bosses a^{13} and a^{14} . When the bail is turned up into a vertical position, the ends c^2 and c^3 come into contact with the flanges a^{15} and a^{16} , and prevent further rotation around the studs a^{11} and a^{12} . It is therefore impossible for the torch while being carried to swing upon its pivots in such manner as to bring the wick W with its flame into dangerous proximity to the hand of the carrier. At the same time the bail may be

dropped toward the back of the torch so as to present no obstruction to the removal of the cap. Of course this cap requires to be swiveled as shown so that it may be unscrewed when desired.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. A torch comprising a cast body having rounded contours and a broad flat base, with an inclined projecting tubular extension cast integral with said body, an opening cast in the upper part of the body and separately machined fittings secured in said extension and in said upper opening, for the purpose of receiving and holding a wick and a cap, respectively, substantially as described.

2. A torch having a body, an inclined tubular extension on one side of the body carrying a wick, a bail or handle secured transversely across the top of the body, and having its ends pivoted to the same, and means for limiting the backward swing of the body on its pivots with respect to the bail, whereby the approach of the torch flame to the hand of the carrier is prevented, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY H. NICHOLS.

Witnesses:

JAMES S. CLIFFORD,
WM. D. THEDREY.